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Sediment Basin to Benefit Elk River, Livestock Production

Thanks to a newly constructed sediment basin built to reduce manure and sediment runoff and increase farm productivity, longtime livestock producer Loren Peters of Clinton County says he now feels good about the environmental condition of the operation he is leaving to his family.

Loren and Brad Peters

The 75-year-old Peters recently recruited his son, Larry, and two grandsons, Brian and Brad, to form L Peters & Sons, Inc. They plan to carry on the family farming business for decades. As a family business, one of their first major moves was to implement a concrete sediment basin into their 225-head cattle feeding operation.

Their sediment basin is 84 feet long, including a 30-foot ramp, and 54 feet wide with three-foot high concrete walls. It was engineered by the USDA's Natural Resources Conservation Service (NRCS) to settle solids from feedlot runoff.

Protecting the Elk River

The Peters' feedlot is located in the Elk River Watershed. Loren Peters said one of the reasons they chose to install the basin was to protect Elk River. "Farmers are accused of a lot of pollution," said Loren Peters. "We want to keep our manure from going into the stream."

Elk River Watershed Coordinator Leah Sweely with the Clinton County Soil and Water Conservation District (SWCD) said several local livestock producers have shown recent interest in sediment basins. "The producers who plan to feed cattle for the long-term are the ones asking questions and showing the most interest," she said.

Better Manure Utilization

Another benefit the sediment basin will provide to the Peters' is better manure utilization. Prior to installing the sediment basin, the Peters spread manure on their 260 cropland acres until it flowed down a grassed waterway.

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"We were having problems with too much runoff and residue in the fields where it enters a big waterway," said Loren Peters. "We had a sort of delta that was getting so rich with manure that crops didn't produce."

The youngest partner, 21-year-old Brad, said the basin helps improve their ability to record how many more loads of manure they can utilize. "It's interesting to see how much more manure we are able to utilize as fertilizer compared to before and how much less goes down that waterway," he said.

Top: *Before the sediment basin was installed, manure and sediment runoff flowed down a waterway, affecting cropland and possibly Elk River. (Photo by Leah Sweely)* ***Above:*** *Now solids are confined to the concrete sediment basin, and more easily and efficiently spread across cropland as fertilizer. (Photo by Jason Johnson)*

And better manure utilization means easier recordkeeping and better crop yields. "I know that when we go out there with the corn planter, the fields are going to be a lot drier [in areas typically saturated by runoff]," said Brad Peters.

Expansion

L Peters & Sons, Inc. plans to expand their livestock feeding operation to about 400 head. They think the new sediment basin will make that transition easier, since it has a holding capacity for the additional planned lot expansion area.

Loren Peters said the sediment basin will do a lot for the future of the operation. "My wife and I are so happy that my son and grandchildren want to continue producing livestock," he said. "This new sediment basin will help the children for years to come."

Funding

To help pay for their new sediment basin, the Peters received funding through the Iowa Watershed Improvement Fund, which is administered by the Watershed Improvement Review Board (WIRB) with support from the Iowa Department of Agriculture and Land Stewardship-Division of Soil Conservation (IDALS-DSC). They were also funded through the Watershed Protection Fund (WSPF), which is administered by IDALS-DSC.

A few similar sediment basin installation projects in the Elk River Watershed were funded through the Environmental Quality Incentives Program (EQIP), which is administered by NRCS.

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